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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,553	01/04/2002	Mark Linus Bauman	ROC920010193US4	7117

7590 10/18/2005

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EXAMINER

TRUONG, LECHI

ART UNIT PAPER NUMBER

2194

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/037,553	Applicant(s) BAUMAN ET AL.	
	Examiner LeChi Truong	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 2, 11 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10, 12-19, 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 3-10, 12-19, 21-26 are presented for the examination. Claims 2, 11 and 20 are canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-8, 10, 13-17, 19, 21, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Firth et al (US. 5,987,517).
3. As to claim 1, APA teaches the invention substantially as claimed including: providing asynchronous network communication between a client and a server (page 5, ln 24-28), a continuous mode input operation (synchronous accept/receive APIs accept connections and receive data, page 3, ln 13-16), a listening socket (socket accept connections, page 3, ln 9-10 and ln 23-24), asynchronous accept operation configuring a listening socket to handle plurality of incoming client connections (page 3, ln 9-10 and ln 23-25), a client socket (socket receive, page 3, ln 9-10/ page 4, ln 8-10/ ln 32-33), asynchronous receive operation configuring a client socket to handle a plurality of client requests(page 3, ln 9-10/ ln 28-32 and page 4, ln 8-11),

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configuring a socket for an application on the server(page 3, ln 17-22), in response to a request from the client(page 3, ln 22-26).

4. APA does not explicit teach the single asynchronous operation. However, Firth teaches single asynchronous operation (select asynchronous behavior for function calls, and select internal caching. The single call to InternetOpent() initializes and Internet session for the application, col 16, ln 26-32/ asynchronous function operation, col 15, ln 42-46/ an application can communication information about several request using a single function call, col 18, ln 15-20).

5. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA and Firth because Firth's the single asynchronous operation would improve flexibility of APA's system by adding new or additional Internet application protocols for establishing communications with a variety of computer networks.

6. **As to claim 4**, APA teaches the continuous mode input operations are issued from a main thread of the application (page 14, ln 17-20).

7. **As to claim 5**, APA teaches placing a single pending receive data structure on a pending queue (page 5, ln 4-6), copying contents of the pending receive data structure to a completed receive data structure queued on a receive completion queue (page 5, ln 5-8).

8. **As to claim 6**, APA teaches placing a single pending accept data structure on a pending queue; for each of the plurality of incoming client connections (page 4, ln 20-21), copying contents of the single pending accept data structure to a completed accept data structure queued on a accept completion queue (page 4, ln 22-24).

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9. As to claim 7, it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

10. As to claim 8, APA teaches acquiring a buffer from system supply memory to contain the completed client request (page 5, ln 13-14).

11. As to claim 10, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, APA teaches application-programming interface (page 3, ln 1-4).

12. As to claims 13-17, they are apparatus claims of claims 4-8; therefore, they are rejected for the same reasons as claims 4-8 above.

13. As to claim 19, it is an apparatus claim of claim 10; therefore, it is rejected for the same reason as claim 10 above. In additional, Firth teaches a network connection with a remote computer (col 3, ln 35-34), a processor (col 5, ln 1-7), memory (col 5, ln 1-7).

14. As to claims 21, 23-26, they are apparatus claims of claims 4-8; therefore, they are rejected for the same reasons as claims 4-8 above.

15. Claims 3, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Firth et al (US. 5,987,517), as applied to claim 1 above, and further in view of Shah et al (US. Patent 6,175,879 B1).

16. As to claim 3, APA and Firth do not explicit teach receive the client requests without invoking the application unit the request is completely received. However, Shah teaches receive

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the client requests without invoking the application unit the request is completely received (col 6, ln 45-53/ col 4, ln 40-45).

17. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA, Firth and Shah because Shah's single operation would improving reliability of APA and Firth's systems by preventing APA's system from down grading its performance that associated with receive-any data handling.

18. **As to claim 12**, it is an apparatus claim of claim 3; therefore, it is rejected for the same reason as claim 3 above.

20. Claims **9, 18, 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of Firth et al (US. 5,987,517), as applied to claim 1 above, and further in view of Joh (US. Patent 6,717,954 B1).

21. **As to claim 9**, APA and Shah do not teach the buffer comprises sizing the buffer according to a size of the completed client request. However, Joh teaches the buffer comprises sizing the buffer according to a size of the completed client request (buffer is the same size of the current message, col 8, ln 1-2).

22. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of APA, Shah and Joh because Joh's sizing the buffer according to a size of the completed client request would increase the efficiency of APA and Shah's systems by providing a custom fit for message transmission based on client request.

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23. As to claims 18, 22, they are apparatus claims of claim 9; therefore, they are rejected for the same reason as claim 9 above.

Claim Rejections - 35 USC § 102

24. Claims 1, 3-10, 12-19, 21-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Bauman (Efficient method for determining record based I/O on top of streaming protocols).

25. As to claim 1, Bauman teaches asynchronous network communications between a client and a server (para [008], ln 1-7), a socket (a socket, para [0019], ln 1-5/ para [0054], ln 20-25), configuring a socket for an application on the server (para [0019]/ para [0054], ln 20-25), a request from client (incoming client connections request 1508, para [0100], ln 10-15/ a new client connect, para [0098], ln 13-16), in response to a request from the client (para [0098], ln 13-18), a single continuous node operation(a single asynchronous accept / a single asynchronous receive, para[0097], ln 1-6), issuing a single continuous mode operation to a socket(para[0060], ln 3-9), a single asynchronous accept operation, para[0098] , ln 13-20), configuring a listening socket to process a plurality of incoming client connections(para[0060], ln 3-9/ para[0097], ln 1-6, left col 13, ln 57-60), a single asynchronous receive operation(an asynchronous continuous receive operation, para[0098], ln 21-26), a single continuous asynchronous receive operation configuring a client socket to handle a plurality of client requests(right col 14, ln 1-3).

26. As to claim 3, Bauman teaches configuring the client socket, with the single continuous mode receive operation, to recognize a format of each of the plurality of client requests [para

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[0021], ln 2-10), whereby the client socket is configured to receive the client requests without invoking the application until the request is completely received, para [0022], ln 3-9).

27. As to claim 4, Bauman teaches the single continuous mode operations are issued from a main thread of the application (para [0013], ln 5-10).

28. As to claim 5, Bauman teaches placing a single pending receive data structure on a pending queue (para [0013], ln 10-13), copying contents of the pending receive data structure to a completed receive data structure queued on a receive completion queue (right col 14, ln 18-22).

29. As to claim 6, Bauman teaches placing a single pending accept data structure on a pending queue (right col 14, ln 23-28); for each of the plurality of incoming client connections, copying contents of the single pending accept data structure to a completed accept data structure queued on a accept completion queue, wherein the single pending accept data structure remains on the pending queue (right col 14, ln 23-28).

30. As to claim 7, it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

31. As to claim 8, Bauman teaches for each completed client request, acquiring a buffer from system supply memory to contain the completed client request(right col 14, ln 38-40).

32. As to claim 9, Bauman teaches allocating the buffer comprises sizing the buffer according to a size of the completed client request (right col 14, ln 41-43)

33. As to claim 10, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Bauman teaches application-programming interface (para [0020], ln 5-10).

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34. As to claims 12-17, they are apparatus claims of claims 2-8; therefore, they are rejected for the same reasons as claims 2-8 above.

35. As to claim 18, Bauman teaches the buffer comprises sizing the buffer according to a size of the completed client request (para [0049], ln 6-13).

36. As to claim 19, it is an apparatus claim of claim 10; therefore, it is rejected for the same reason as claim 10 above. In addition, Shah teaches a network connection with a remote computer (col 2, ln 58-65), a processor (col 3, ln 1-4), memory (col 3, ln 1-4).

37. As to claims 21, 23-26, they are apparatus claims of claims 2-8; therefore, they are rejected for the same reasons as claims 2-8 above.

38. As to claims 18, 22, they are apparatus claims of claim 9; therefore, they are rejected for the same reason as claim 9 above.

Response to the argument

39. Applicant's arguments filed 08/02/2005 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended the claims. Firth and Bauman's references met the amended claims.

40. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).


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LeChi Truong

October 11, 2005


WITHIN
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